Volume-insensitive costs — Costs that do not vary with changes in the quantity of output, but are avoidable by not supplying the output.

Shared costs — Costs that are attributable to a group of outputs but not specific to any one within the group, which are avoidable only if all outputs within the group are not provided.

Service-specific costs — Costs, other than basic network function specific costs, that are caused by offering a service (*e.g.*, service advertising).

Common costs — Costs that are common to all outputs offered by the firm. While these costs are not considered part of a TSLRIC study, recovery of such costs is required. Recovery of common costs is a pricing issue.

Inclusion of Annual Charge Factors

In Docket UM-351, the Oregon PUC adopted the use of factors and loadings as one of its main costing principles. Factors and loading are used when costs cannot be identified directly. Examples are operations and maintenance, depreciation, taxes and rate of return. These factors and loadings are an appropriate part of a TSLRIC study.

Consensus Costing Principles
R.93-04-003, I.93-04-002

BNF Costs vs. Service-Specific Costs

The LECs will report all investments and associated capital costs (*i.e.*, cost of money, taxes and depreciation) as BNF costs. The LECs will report cash operating expenses other than maintenance expenses as service-specific costs. The parties do not agree as to whether maintenance expenses shall be treated as costs of services or costs of BNFs.

Electronics	The service-specific electronic facilities necessary to utilize feeder and distribution for that service.
Fiber Ring	A per access line unit cost.
Service Map	A map or description of how much fiber ring or feeder and distribution facilities and which service-specific service electronics are necessary to establish network access for each service. The "map" will also include the customer density distribution, by service, for each of the areas for which the facilities information is provided.

GTE

Copper Technology[4]	Cost detail will be provided by density category (*e.g.*, high, medium and low) and by distance for basic level network access channels (*i.e.*, loops). Copper technology will be used for shorter loops (*e.g.*, up to 12 kilofeet).
Pair-Gain Technology[4]	Cost detail will be provided by density category (*e.g.*, high, medium and low) and by distance for basic level network access channels (*i.e.*, loops). Pair-gain technology (*i.e.*, fiber cable leaving the central office, a pair-gain device and copper cable) will be used for longer loops. The cost will be

[4] Unit (or monthly) cost detail, by density category, by distance, and by bandwidth, and examples will be available for mapping to final services.

CONSENSUS BASIC NETWORK FUNCTIONS

The parties participating in the OAND cost study workshops have agreed that the following definitions of Basic Network Functions ("BNFs") and specifications of cost drivers for each BNF should replace the discussions of the corresponding categories of BNFs and associated cost drivers that appeared in Attachment B of the Assigned Commissioner's Ruling. Those BNFs that are not specifically addressed in this "Consensus Basic Network Functions" document are not the subject of agreement among the parties.

NETWORK ACCESS CHANNEL

General Category

BNFs for subcategory Network Access Channel.

Pacific Bell[3]

Feeder	A cost function formula for feeder facilities for each wire center showing cost varying as a function of distance from the wire center.
Distribution	A cost function formula for distribution facilities for each wire center showing cost varying as a function of distance from the serving area interface (SAI).

[3] Cost equals unit investment cost.

identified for copper cable, fiber cable, support structures (*i.e.*, poles and conduit systems common to both), and pair-gain devices (*i.e.*, electronics).

Fiber Technology[4] Cost detail will be provided by system size for DS-1 and DS-3 network access channels. Costs will be identified for fiber cable, support structures and associated electronics.

Channel Performance, Other Features and Functions (CP) This category of cost will address equipment components (*e.g.*, electronics) which are used in conjunction with the basic network access channel to meet the quality or utility of specific services (*e.g.* , private line).

Cost Drivers: distance from the wire center (or central office); electronics; fiber ring length; size of cable/system; bandwidth; wire center size/density. Pacific's studies may not show facilities' costs varying as a function of density within a wire center, reflecting unit investments per wire center.

BNFs for subcategory NA Channel Connection. The subcategory of BNFs that provide the interface between the NA Channel, the switched network, another NA Channel or a Dedicated Transport interoffice transmission path.

(1) **Network Access Channel Connection - Switch Interface**[5]

(2) **Network Access Channel Connection - Cross-connect** (*i.e.*, the jumper)

E.g.:
- Analog
- DS-0
- DS-1
- DS-3

(3) **EISCC** (*i.e.*, the connection between the point of interconnection and the LEC's cross-connect point)

E.g.:
- Analog
- DS-0
- DS-1
- DS-3

SWITCHING AND SWITCHING FUNCTIONS

BNFs for subcategory Switching. The subcategory of BNFs that establish a call and a temporary transmission path through the switch architecture for originating, terminating, intraoffice (single office), interoffice (multi-office) or tandem switching. Each BNF consists of a particular call setup, by time-of-day (TOD) and duration by TOD.

[5] This is also referred to as non-traffic-sensitive switching (*i.e.*, a line termination, cable to the main distribution frame, *etc.*).

ISSUE: The TOD cost driver distinguishes between peak and off-peak usage. Pacific Bell defines the peak period as the busy-hour; MCI defines the peak period as the billing period in which the peak occurs (*e.g.*, day).

BNFs for subcategory Switching.[6]

(a) **BNFs for subcategory Intraoffice (Single-Office) Switching: Setup and Duration.**

(b) **BNFs for subcategory Interoffice (Multi-Office) Switching - Originating Office: Setup and Duration.**

(c) **BNFs for subcategory Interoffice (Multi-Office) Switching - Terminating Office: Setup and Duration.**

(d) **BNFs for subcategory Tandem Switching: Setup and Duration.**

SS7 SIGNALLING NETWORK FUNCTIONS

BNFs for subcategory SS7 Signalling. The subcategory of BNFs that provide the temporary signalling transmission path through the network. The signalling network consists of the signaling links, Signal Transfer Point (STP) and Service Control Point (SCP).

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[6] The cost drivers are (a) for setup: office technology, on-peak/off-peak, digits dialed, forwarding of calling party identification; (b) for duration: office technology, on-peak/off-peak.

BNFs for subcategory SS7 Signalling

(1) **Setup:** Cost drivers are busy-hour octets.

(2) **Queries:** Cost drivers are busy-hour octets.

(3) **Links:** Cost drivers are bandwidth and distance.

(4) **STP interface:** The bandwidth-specific standard interface to STP node. Cost drivers are number of 56kbs link terminations.

TRANSPORT

General Category

Subcategories within Transport

6) **Dedicated Transport** - A full period, bandwidth specific (DS-0, DS-1, DS-3) interoffice transmission path between switching offices and/or serving wire centers of an LEC.

Termination - An interface between the channel connection and the dedicated transport facilities.

(6-1) DS-0 Level

(6-2) DS-1 Level

(6-3) DS-3 Level

Facility - The full period, bandwidth specific (DS-0, DS-1, DS-3) interoffice transmission path established between two points of dedicated transport termination.

(6-4) DS-0 Level

(6-5) DS-1 Level

(6-6) DS-3 Level

Possible cost drivers: Bandwidth, whether office is on or off the fiber ring, nodes on the ring, number of rings (*i.e.*, for inter-ring application), system size and/or distance.

7) Switched Transport - The temporary time-sensitive interoffice transmission paths between switching offices and/or serving wire centers of the LEC.

(7-1) Termination - An interface between the switching function and switched transport facilities.

(7-2) **Facility** - The temporary interoffice transmission path established between two points of switched transport termination.

(7-3) **Tandem Switching** - The intermediate points of switching used as an economic surrogate to direct routing of interoffice facilities in the provision of switched transport.

Possible cost drivers: Calls and minutes by time of day, whether the office is on or off the fiber ring, nodes on the ring, number of rings (*i.e.*, for inter-ring application), system size and/or distance.

Consensus Basic Network Functions
R.93-04-003, I.93-04-002

The undersigned parties hereby confirm that the Consensus Costing Principles and Consensus Basic Network Functions presented on pages 1 through 15 of this document accurately present the agreement reached in the OAND Cost Study Workshops and that they support Commission adoption of these costing principles, basic network functions and associated cost drivers for purposes of the cost studies to be produced by the Local Exchange Carriers in this docket.

Dated: August 11, 1995

William C. Harrelson for
the California Telecommunications Coalition

Ira Kalinsky for
the Division of Ratepayer Advocates

Cecil Simpson for
DOD/FEA

Judith Endejan for
GTE California, Inc.

Timothy Dawson for
Pacific Bell

APPENDIX C
Page 18

Consensus Basic Network Functions
R.93-04-003, I.93-04-002

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Pacific Bell

APPENDIX C

Page 19

Consensus Basic Network Functions
R.93-04-003, I.93-04-002

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Dated: August 11, 1995

William C. Harrelson for
the California Telecommunications Coalition

Ira Kalinsky for
the Division of Ratepayer Advocates

Cecil Simpson for
DOD/FEA (The U.S. Department of Defense and All other Federal Executive Agencies)

8/14/95

Judith Endejan for
GTE California, Inc.

Timothy Dawson for
Pacific Bell

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Legal Department

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PACIFIC BELL.
A Pacific Telesis Company

August 21, 1995

Via Facsimile

Mr. William Harrelson
MCI
201 Spear Street
Ninth Floor
San Francisco, California 94105

Re: OANAD Cost Workshops
-- Consensus Document

Dear Bill:

Enclosed is the final version of the consensus document coming out of the cost workshops. This version was faxed to me by Terry Murray this afternoon. This version is acceptable to Pacific Bell.

Sincerely,

cc: Mr. Lakritz
Ms. Murray (w/o enclosure)

CERTIFICATE OF SERVICE

I, Gina Gomez, certify that the following is true and correct:

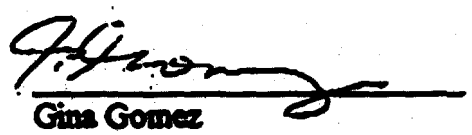
I am a citizen of the United States, State of California, am over 18 years of age, and am not a party to the within cause.

My business address is 201 Spear Street, 9th Floor, San Francisco, California, 94105.

On August 23, 1995, I served the attached **Consensus Costing Principles/Basic Network Functions; OANAD Cost Methodology Workshops** by placing true copies thereof in envelopes addressed to the parties in the attached service list.

Executed this 23rd day of August, 1995 at San Francisco, California.

MCI TELECOMMUNICATIONS CORPORATION
201 Spear Street, 9th Floor
San Francisco, CA 94105
(415) 978-1199



Gina Gomez

(END OF APPENDIX C)

ATTACHMENT B

AT&T / Pacific Bell Arbitration Prices for Unbundled Network Elements

Appendix A

NETWORK ELEMENTS	Monthly Recurring	Service Order Initial	Service Order Additional	Connect Initial	Connect Additional	Disconnect Initial	Disconnect Additional	Change Order Initial	Change Order Additional
LOOP									
Weighted 2-Wire Basic Link	$12.82	$37.31	$3.11	$111.65	$37.32	$74.89	$15.76	$139.85	$28.76
Weighted 4-Wire Basic Link	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Assured	$12.82	$26.23	$3.83	$217.26	$88.59	$71.85	$14.34	$179.69	$88.93
ISDN Option	$17.26	$40.04	$2.99	$169.05	$71.50	$114.84	$38.31	$183.71	$88.97
Digital Link - 1.544 Mbps	$88.88	$202.77	N/A	$527.49	N/A	$284.71	N/A	$0.00	$0.00
PBX	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Coin	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NETWORK INTERFACE DEVICE	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
LOCAL SWITCHING CAPABILITY									
Ports									
2-Wire Port	$3.49	$46.87	$6.80	$91.49	$48.38	$84.15	$7.31	$134.12	$82.23
Coin Port	$3.88	$46.87	$6.80	$91.49	$48.38	$84.15	$7.31	$134.12	$82.23
Centrex Port	$6.84	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Centrex System Establishment	N/A	$0.00	N/A	$54.38	N/A	$27.18	$27.18	$41.71	$41.71
ISDN Port	$16.76	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
DID Port	$6.08	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
DID Number Block	$1.47	N/A	N/A	$16.44	$16.44	$4.38	$4.38	$6.87	$6.87
Hunting -Business	$0.30	$4.84	$4.84	$1.37	$1.37	$2.88	$0.74	$10.86	$2.78
DS-1 Line Port	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Ports Combined with Loop									
Ports (All)	N/A	$6.80	$6.80	$91.49	$48.38	$43.50	$7.31	$97.36	$53.23
Vertical Features (weighted Avg)									
Call Forwarding Variable	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Busy Call Forwarding	$0.83	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Delayed Call Forwarding	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Call Waiting	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Three Way Calling	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Call Screen	$0.86	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Message Waiting Indicator	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Repeat Dialing	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Call Return	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Call Forwarding Busy/Delay	$0.84	$0.82	$0.00	$1.37	$1.37	$1.46	$0.74	$8.15	$2.78
Remote Call Forwarding (Weighted Avg	$1.76	$10.54	$2.11	$3.44	$3.44	$6.08	$6.08	$9.24	$9.24
Other Vertical Features	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

AT&T / Pacific Bell Arbitration Prices for Unbundled Network Elements — **Appendix A**

NETWORK ELEMENTS	Monthly Recurring	Service Order Initial	Service Order Additional	Connect Initial	Connect Additional	Disconnect Initial	Disconnect Additional	Change Order Initial	Change Order Additional
Basic Switching Functions									
Interoffice - Originating									
Setup per Attempt	$0.000883								
MOU	$0.000875								
Interoffice - Terminating									
Setup per Call	$0.007006								
MOU	$0.000800								
Interoffice									
Setup per Call	$0.016156								
MOU	$0.000800								
Tandem Switching									
Setup per Call	$0.002843								
MOU	$0.000884								
INTEROFFICE TRANSMISSION									
Trunk Port Termination									
End Office Dedicated DS1 Port	$18.01	$47.87	TBD	$277.45	TBD	$126.17	$2.04	$288.28	$4.67
Tandem Dedicated DS1 Port	$18.01	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CLC Switched Service Establishment									
1AESS	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
5ESS	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
DMS100	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Common Transport									
Zone 1									
Fixed Mileage	$0.000472	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000015								
Zone 2									
Fixed Mileage	$0.000472	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000019								
Zone 3									
Fixed Mileage	$0.000479	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000020								
Zone 4									
Fixed Mileage	$0.000808	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000024								
Dedicated Transport									
Voice Grade Dedicated Transport									
Zone 1									
Fixed Mileage	$2.75	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Variable Mileage	$0.14								
Zone 2									
Fixed Mileage	$2.76	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Variable Mileage	$0.16								
Zone 3									
Fixed Mileage	$2.81	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Variable Mileage	$0.17								
Zone 4									
Fixed Mileage	$3.05	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Variable Mileage	$0.22								
DS1 Dedicated Transport									
Zone 1									
Fixed Mileage	$28.00	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$1.22								
Zone 2									
Fixed Mileage	$28.01	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$1.54								
Zone 3									
Fixed Mileage	$28.48	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$1.89								
Zone 4									
Fixed Mileage	$30.53	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$2.03								
DS3 Dedicated Transport									
Zone 1									
Fixed Mileage	$300.47	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$21.99								
Zone 2									
Fixed Mileage	$302.56	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$30.06								
Zone 3									
Fixed Mileage	$308.17	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$34.22								
Zone 4									
Fixed Mileage	$357.83	$47.87	TBD	$383.97	TBD	$234.55	$0.20	$448.66	$1.23
Variable Mileage	$41.54								

AT&T / Pacific Bell Arbitration Prices for Unbundled Network Elements — **Appendix A**

NETWORK ELEMENTS	Monthly Recurring	Service Order Initial	Service Order Additional	Connect Initial	Connect Additional	Disconnect Initial	Disconnect Additional	Change Order Initial	Change Order Additional
Shared Transport									
Zone 1									
Fixed Mileage	$0.000883	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000015								
Zone 2									
Fixed Mileage	$0.000883	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000019								
Zone 3									
Fixed Mileage	$0.000880	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000020								
Zone 4									
Fixed Mileage	$0.000922	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Variable Mileage	$0.000024								
MULTIPLEXING									
DS0 / DS1 MUX	$236.71	$47.87	N/A	$488.20	N/A	$228.44	$228.44	$0.00	$0.00
DS1 /DS3 MUX	$260.30	$47.87	N/A	$488.59	N/A	$228.47	$228.47	$0.00	$0.00
DCS	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
USCC	$20.95	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
SIGNALING SYSTEM 7 (SS7)									
STP Port	FCC Tariff 128								
SS7 Link	FCC Tariff 128								
Link Mileage	FCC Tariff 128								
800 Database	FCC Tariff 128								
LIDB Query	FCC Tariff 128								
OPERATOR SERVICES & DA									
Directory Assistance Per Call	$0.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operator Services per Work Sec	$0.02667	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COLLOCATION									
EISCC Combined with Loop									
Basic	$1.17	$3.11	$3.11	$120.22	$94.70	$61.28	$61.28	$1.84	$1.84
DS0	$17.52	$3.11	$3.11	$141.84	$116.32	$65.03	$65.03	$1.84	$1.84
DS1	$17.96	$3.11	$3.11	$168.24	$167.72	$71.32	$71.32	$1.84	$1.84
DS3	$88.80	$3.11	$3.11	$188.54	$184.02	$88.98	$88.98	$1.84	$1.84
EISCC									
Basic	$1.17	$36.57	$7.31	$120.22	$94.70	$78.59	$78.59	$0.00	$0.00
DS0	$17.52	$36.57	$7.31	$141.84	$116.32	$83.33	$83.33	$0.00	$0.00
DS1	$17.96	$36.57	$7.31	$168.24	$167.72	$88.62	$88.62	$0.00	$0.00
DS3	$88.80	$36.57	$7.31	$188.54	$184.02	$88.29	$88.29	$0.00	$0.00
Entrance Facilities									
2-Wire Voice	$89.95	$54.40	$54.40	$161.52	$161.52	$94.63	$94.63	$21.51	$21.51
4-Wire Voice	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
DS-1	$89.80	$33.79	$33.79	$348.84	$348.84	$215.34	$215.34	$0.00	$0.00
DS-3 w/equip	$1,089.95	$54.39	$54.39	$411.08	$411.08	$141.95	$141.95	$0.00	$0.00
DS-3 w/o equip	$395.91	$54.39	$54.39	$398.85	$398.85	$141.95	$141.95	$0.00	$0.00